

WE CLAIM:

1. A device model agent (DMA) comprising:
at least one device API through which the agent communicates with a device;
a core device model including at least one CIM provider; and
a service environment.
2. The DMA of claim 1 wherein the core device model comprises a service manager.
3. The DMA of claim 2 wherein the service manager loads services into the service environment.
4. The DMA of claim 2 wherein the service manager maintains a list of services installed in the DMA.
5. The DMA of claim 2 wherein the service manager controls lifecycles of at least one service installed in the DMA.
6. The DMA of claim 1 wherein the core device model comprises an object manager.
7. The DMA of claim 1 wherein the core device model agent comprises an event manager.
8. The DMA of claim 1 wherein the service environment is a Java virtual machine.
9. The DMA of claim 1 wherein the Java virtual machine is J2ME.

10. In a device comprising an operating system and a web server, a device model agent (DMA) in communication with the operating system and the web server and running at least one service, the DMA comprising:

- a service environment in which the at least one service runs, the service environment facilitating communication between the at least one service and other parts of the DMA, the service environment further facilitating communication between the at least one service and the web server;
- a core device model including a service manager in communication with and managing the at least one service; and
- a device API in communication with the core device model and aspects of the operating system of the device.

11. The DMA of claim 10 wherein the at least one service communicates with a service supplier via the web server.

12. The DMA of claim 11 wherein the at least one service communicates with a server of the service supplier to deliver information about the device.

13. The DMA of claim 11 wherein the at least one service communicates with a server of the service supplier to request an additional service.

14. The DMA of claim 10 wherein the at least one service checks in with an edge server to deliver pending messages to the edge server and to receive waiting messages from the edge server.

15. The DMA of claim 10 wherein the device model agent provides a UI through the web server.

16. The DMA of claim 10 wherein the core device model monitors device events.

17. The DMA of claim 16 wherein the core device model takes at least one action in response to device events.

18. The DMA of claim 17 wherein the at least one action includes publishing data.

19. The DMA of claim 17 wherein the at least one action includes invoking processes on the host device as directed by external clients.

20. The DMA of claim 17 wherein the at least one action includes requesting addition of a service.

21. The DMA of claim 17 wherein the at least one action includes deleting a service.